Accomplishments

Our goal for Sprint 1 was to learn TypeScript and the frameworks needed for our project and then utilize those to create the foundational structure for our project and a working user interface as well. This goal ended up being partially achieved since we were able to get as far as creating the front end and the back end as well as being able to integrate them together, but we were unable to actually work on most of the user interface.

Our starting accomplishment was to familiarize ourselves with TypeScript and its typing system. Most of us had not actually used TypeScript before, but we realized that it would be the best language for our projects due to its strict typing system and the frameworks associated with it that would help us in making our website for our personal knowledge management system. After we were able to familiarize ourselves with that, we were ready to get started on the project itself.

After that, we started working on creating the front end and the back end. We created the front end with React and successfully configured it. We then created the back end utilizing Node.js with Express.js so that it would be a full-stack TypeScript project and would simplify the languages that the team would need to learn.

Following that, we had to allow the front end, which was running on localhost:3000, to communicate with the back end, which was running on localhost: 5000. In order to do so, the back end had to be able to receive the API requests from the front end. However, the API requests were blocked by the browser due to security reasons. So, to circumvent this, we had to configure the CORS middleware so that the front end would be able to communicate with the front end, which we were able to do successfully.

Finally, we created a little bit of the UI on the front end by organizing the main page and organizing the CSS files a little bit. This made the main page look a bit more visually appealing and gave it a little bit of a structure so that we would have an outline for what we would have to do in the next sprints.

Overall, we ended up accomplishing a few things. We were able to create both the front end and the back end. After doing so, we let the two communicate with each other with their API requests and then set up the skeleton for the front end.

Challenges

One challenge that the team faced originally was trying to decide how we should actually do the project. The group was split on whether we should use C++, Python, or TypeScript for our project. We all had different specialties and could not figure out what to do for the project itself. We came to a conclusion by not only asking the TA for some help on what she would recommend is a good language but also looking into the languages and researching how well they would work for what we needed to create. By doing so, we were able to agree on utilizing a full stack TypeScript so that the group members would only need to learn one language and so that the website would be able to run efficiently.

Some issues that we faced while actually working on the code were accustoming to TypeScript's strict typing style and dependency issues. Due to how TypeScript works, we had to go back over the code multiple times when coding errors were made and correct ourselves into working with TypeScript's language. However, this results in better stability for the long term. The main issue that we had with coding originally was the dependency issues. Many of the packages conflicted with each other, so we had to keep on going through multiple versions of each package and figure out which versions would not conflict with others. We were eventually able to figure it out to get the website to run smoothly.

A major challenge that the team faced was communication issues. We ended up miscalculating the deadline, and that resulted in us not being able to complete as much work as we wanted to do. On top of that, we were not able to properly find times to meet up or communicate with each other, resulting in us struggling to properly work around each others' schedules. To fix this, we ended up deciding a certain time that would work for all of us to meet, and we will meet up and discuss the project during those times.

Client Feedback

For our demo, we ended up showing something different than what was completed by Sprint 1. This was due to our meeting with our client being on March 7th, whereas Sprint 1 ended on March 3rd. However, if we had shown what we had finished on March 3rd, we would have gotten feedback of the issue of us not actually doing much with the interface. We had not been able to implement any of the features that we had wanted to due to our time mismanagement.

However, with the demo that we ended up showing, we were able to complete the beginning parts of the UI, and that is what we received feedback on. We need to complete more of the note system ourselves in the sense that we need to be able to create separate notes and organize them separately. We also need to add in a tagging system, and those are most likely the features that we will work on implementing in Sprint 2.